Comparisons of Job Characteristics

Focus Occupation: Soil and Plant Scientists (19-1013)
Associated Occupation: Conservation Scientists (19-1031)

Compare Knowledge
Compare Skills
Compare Abilities
Compare Detailed Work Activities
Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 61

Focus Occupation: Soil and Plant Scientists (19-1013)
Associated Occupation: Conservation Scientists (19-1031)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Biology	3.7	16.2	18.5	>	Current knowledge level is likely sufficient
Geography	3.9	14.3	12.6	<	Expanded education and/or training may be required
Law and Government	5.9	11.4	6.1	<<	Extensive education and/or training may be required
History and Archeology	2.6	9.0	4.0	<<	Extensive education and/or training may be required
Food Production	2.1	5.5	13.1	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 87

Focus Occupation: Soil and Plant Scientists (19-1013)
Associated Occupation: Conservation Scientists (19-1031)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Science	4.5	9.3	16.0	>>	Skill level is likely more than sufficient
Systems Analysis	6.5	9.3	11.8	>	Skill level is likely sufficient
Operations Analysis	5.0	9.0	9.4	0	Current skill level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities

Similarity of Focus Occupation to Associated Occupation: 95

Focus Occupation: Soil and Plant Scientists (19-1013)
Associated Occupation: Conservation Scientists (19-1031)

Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Oral Expression	12.4	14.7	15.7	0	Current ability level may be sufficient
Oral Comprehension	12.5	14.0	14.4	0	Current ability level may be sufficient
Written Comprehension	11.0	13.7	13.3	0	Current ability level may be sufficient
Problem Sensitivity	11.1	13.0	12.9	0	Current ability level may be sufficient
Speech Clarity	10.2	12.7	13.8	0	Current ability level may be sufficient
Deductive Reasoning	10.6	12.6	14.7	>	Current ability level is likely sufficient
Inductive Reasoning	10.2	12.2	15.1	>	Current ability level is likely sufficient
Written Expression	9.8	12.1	12.9	0	Current ability level may be sufficient
Speech Recognition	9.9	12.0	10.7	<	Some improvement in abilities may be required
Far Vision	7.8	10.5	11.2	0	Current ability level may be sufficient
Originality	7.6	10.1	13.7	>>	Current ability level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Soil and Plant Scientists (19-1013)
Associated Occupation: Conservation Scientists (19-1031)

Work Activities	Exclusivity of Activity
Adhere to safety procedures	12
Advise clients or customers	19
Advise governmental or industrial personnel	28
Analyze biological research, test, or analysis data	70
Analyze scientific research data or investigative findings	27
Classify plants, animals, or other natural phenomena	69
Collect scientific or technical data	30
Collect statistical data	47
Communicate technical information	4
Conduct field research or investigative studies	52
Confer with engineering, technical or manufacturing personnel	25
Confer with research personnel	50
Confer with scientists	54
Develop or maintain databases	30
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21

Develop tables depicting data	33
Direct and coordinate scientific research or investigative studies	27
Direct implementation of new procedures, policies, or programs	60
Explain complex mathematical information	30
Identify crop characteristics	75
Interpret aerial photographs	69
Judge soil conditions	77
Make decisions	24
Make presentations	13
Monitor soil responses to management practices	99
Perform statistical analysis	71
Plan scientific research or investigative studies	48
Prepare reports	8
Prepare technical reports or related documentation	22
Provide advice on rural or urban land use	92
Read maps	42
Recognize plant diseases	72
Recommend further study or action based on research data	60
Record test results, test procedures, or inspection data	48
Resolve engineering or science problems	46
Use biological research techniques	68
Use computers to enter, access or retrieve data	3
Use knowledge of investigation techniques	16
Use knowledge of relevant laws	77
Use library or online Internet research techniques	21
Use mathematical or statistical methods to identify or analyze problems	30
Use pollution control techniques	62
Use quantitative research methods	35
Use relational database software	26
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17
Write business project or bid proposals	48
Write research or project grant proposals	33
Write scholarly or technical research papers	36

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus Occupation to Associated Occupation: 85

Focus Occupation: Soil and Plant Scientists (19-1013)
Associated Occupation: Conservation Scientists (19-1031)

Tools and Technologies	Exclusivity
Audio and visual equipment	4

Cameras	2
Computers	1
Content authoring and editing software	1
Data management and query software	1
Industry specific software	1
Information exchange software	1
Sampling equipment	12
Soil measuring equipment	20

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.